ABSTRACT

Systems and methods for the multispectral imaging of skin tissue enables automatic characterization of the condition of a region of interest of the skin, based on direct digital imaging of the region of interest or the digitization of color photographic slides of the region of interest, illuminated by appropriately filtered light. Preferably, a digital image at a low spectral band is automatically segmented and that segmented mask is used to segment the other images by a digital processor. Parameters related to the texture, asymmetry, blotchiness and border irregularities are also automatically estimated. The region of interest is automatically characterized by the digital processor, based on those parameters. The region of interest may include a skin lesion, in which case the present invention enables the characterization of the lesion as malignant or benign.